

## HEARING OFFICER'S REPORT

To: Honorable Shawn M. Garvin  
Secretary, Department of Natural Resources and Environmental Control

From: Valerie S. Edge, Deputy Attorney General  
Hearing Officer

Re: **Delaware City Refining Company, LLC's Application to Renew National Pollutant Discharge Elimination System Permits for its Delaware City Refinery and Delaware City Power Plant at 4550 Wrangle Hill Road, Delaware City, New Castle County**

Date: July 11, 2018

### I. PROCEDURAL HISTORY.

This Hearing Officer's Report makes recommendations to the Secretary of the Department of Natural Resources and Environmental Control ("DNREC") on the draft National Pollutant Discharge Elimination System ("NPDES") permit for Delaware City Refining Company, LLC ("DCRC" or "Applicant") publicly noticed on December 14, 2014. The Application seeks to renew and amend the NPDES permits<sup>1</sup> for the Delaware City Refinery at 4550 Wrangle Hill Road, Delaware City, New Castle County ("Refinery"), which are governed by state and federal Clean Water Act laws and regulations. The permit action will incorporate the requirements of NPDES Permit No. DE0050601, formerly a separate permit for the Delaware City Power Plant, into NPDES permit No. DE0000256. On December 1, 2010, DCRC updated the pending application. On December 5, 2014, DCRC supplemented the Applications, providing additional information as required by the December 4, 2014 Settlement Agreement ("Settlement") between DCRC and DNREC.

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<sup>1</sup> On February 28, 2002, Motiva Enterprises LLC submitted the original renewal applications for the Refinery's two NPDES permits (DE005061 and DE0000256) regulating the Refinery's surface water discharges. Premcor Refining Group, Inc. ("Premcor") later purchased the Refinery from Motiva, including all of its permits and pending applications. Premcor thereafter sold the Refinery with all its permits and pending applications to DCRC.

The Department's Division of Water, Surface Water Discharges Section ("SWDS") reviewed the Applications and supplement and prepared a Draft NPDES Permit and Fact Sheet pursuant to Section 6.0 of the Department's *Regulations Governing the Control of Water Pollution, 7 DE Admin. Code 7201* ("NPDES Regulation").

On December 14, 2014, *The News Journal* and the *Delaware State News* published public notices of the Application, the Draft Permit, and the Fact Sheet. This public notice commenced the 30 day public comment period that ended January 13, 2015.

The SWDS received numerous written public comments, including requests that the Department extend the time period for public comments and hold a public hearing. In response, the public comment period was extended until February 12, 2015, and the extension was published in both *The News Journal* and the *Delaware State News*.

By public notices, published in the February 18, 2015 *The News Journal* and the *Delaware State News*, the Department announced that it would hold a public hearing on 6:00 p.m. March 24, 2015, at Gunning Bedford Middle School, 801 Cox Neck Road, New Castle, New Castle County. These public notices also re-opened the public comment period for written comments until the conclusion of the public hearing.

Approximately 500 people attended the public hearing, and written and verbal comments were submitted into the hearing record. Robert Haynes, the Hearing Officer holding the hearing, granted an unopposed request to extend the public comment period for 30 days. There

was significant interest in this proceeding, and the Department received substantial public comment.

Robert Haynes, the Hearing Officer who presided over the public hearing requested technical assistance from the Surface Water Discharges Section (“SWDS”), but retired on June 1, 2018, prior to receipt of that assistance. SWDS provided its Technical Response Memorandum (“TRM”) dated June 22, 2018, prepared by Bryan Ashby and submitted to Lisa Vest. The retirement of Robert Haynes left this hearing proceeding incomplete, and the author of this report was subsequently appointed Hearing Officer to conclude this matter.

The TRM does not specifically recommend any changes to the proposed permit as a result of the public comments and the responses SWDS prepared. However, the hearing record file contained a track changes version of the permit and a transmittal memo to Lisa Vest proposing changes consisting of “largely updates, clarifications, or additional requirements providing more safeguards to protect human health and the environment.” On July 10, 2018, by electronic mail I asked Bryan Ashby to review the tracked changes version and to explain the reasons for the proposed changes. On July 10, 2018, Bryan Ashby submitted an Addendum to the TRM detailing the changes that the SWDS proposed to make to the draft permit after the public hearing. The Addendum explains that for the most part the proposed changes were to correct typographical errors or update information. Where changes were proposed to respond to comments discussed in the TRM, the Addendum points to the discussion in the TRM justifying the proposed changes.

## **II. SUMMARY OF THE RECORD**

In his files, Robert Haynes had pointed to the following documents which would constitute the record: the verbatim transcript of the public hearing and the documents identified as exhibits, the Hearing Officer's report and the TRM that would be provided and any documents referenced therein. The record also includes the document setting out SWDS's proposed changes to the permit after the hearing draft, my email to Bryan Ashby requesting further information on those proposed changes, and the July 10, 2018, response to the Hearing Officer (the TRM Addendum).

## **III. DNREC'S HEARING PRESENTATION**

The SWDS representatives who attended the public hearing were Bryan Ashby, Program Manager, Jennifer Roushey, Program Manager, and John DeFriece, Engineer. Mr. Ashby made a presentation and provided for the record the following:<sup>2</sup>

- Exhibit 1 – the December 1, 2010 Application;
- Exhibit 2 – the December 5, 2014 Supplement;
- Exhibit 3 – the December 14, 2014 draft Fact Sheet;
- Exhibit 4 – the December 14, 2014 draft permit;
- Exhibit 5 – the December 14, 2014 legal notices; and
- Exhibit 6 – the public comments received as of the date of the public hearing.

Hearing Exhibit 3, the draft Fact Sheet, summarized all of the permit changes proposed in the public hearing draft of the permit. Bryan Ashby described the draft permit's proposed consolidation of the Refinery's power plant NPDES permit with the NPDES permit for all other surface water discharges from the Refinery. He provided an overview of the NPDES program established by the Federal Water Pollution Control Act. He explained that the NPDES permits have common sections that identify the facility regulated, the effluent limits whether they are

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<sup>2</sup> The SWDS developed a basic administrative record for the benefit of the public and not to meet any burden of proof.

technology or water quality based, and the monitoring and reporting requirements. Both NPDES permits include the duty to comply and to report noncompliance to DNREC, who has the authority to inspect the Facility to determine compliance. He also noted that NPDES permits may include special conditions such as more detailed monitoring requirements or specific sampling methods.

Mr. Ashby provided the NPDES permit history for the Refinery. He explained that DNREC last issued NPDES permits to Star Enterprises who owned the Refinery in September 1997. Those permits were administratively extended in September, 2002, when a timely application to reissue the permits was submitted. He recounted changes in the Refinery's ownership. He indicated that Valero began to shut down the Refinery in 2009, which was restarted in 2011 after DCRC purchased it. Mr. Ashby discussed the Agreement Governing the Acquisition of the Refinery dated May 30, 2010, the 2011 SWDS prepared pre-notice interim Best Technology Available ("BTA") determination, and the Settlement Agreement between DNREC and the Refinery dated December 4, 2014.

Mr. Ashby explained that when DCRC was finalizing the acquisition and restart of the Refinery, on May 30, 2010, DNREC and DCRC entered into an Agreement Governing the Acquisition of the Refinery. One of the requirements of that Agreement was that DCRC would submit an updated NPDES application and would set a path forward for permit renewal. In 2011, DNREC prepared a pre-notice draft permit. Part of that preliminary draft permit was a Best Technology Available ("BTA") determination for both impingement and entrainment. Mr. Ashby noted that this BTA determination was intended to be interim, and allowed 5 years

for the Refinery to perform studies to either support or refute the BTA determination. For reasons discussed below, the 2011 draft permit was never finalized and was never noticed for public hearing and comment.

Mr. Ashby explained that while DNREC was working on developing the draft 2011 permit, EPA was working on developing regulations pertinent to it. Section 316(b) of the Clean Water Act required EPA to issue regulations on the design and operation of cooling water intake structures in order to minimize adverse environmental impacts. In April of 2011, EPA proposed the Clean Water Act §316(b) regulation, and EPA had committed to issuing the final version of this rule in 2012 due to settlement of a federal court case. Thus, while DNREC was working on the 2011 draft permit, amending it and addressing comments DNREC had received, EPA was working on a rule that would significantly impact the permit. As such, DNREC stopped pursuing the issuance of the permit in order to wait for the issuance of the rule. The §316(b) rule was not finalized until August 15, 2014. Thereafter, SWDS rededicated its efforts to complete a proposed renewal version of the NPDES permit consistent with the 2014 §316(b) regulation.

During this time period, DNREC and DCRC negotiated a settlement agreement to resolve past water quality violations, which was finalized on December 4, 2014. Mr. Ashby described the Settlement's terms, which he explained required the Refinery to undertake a supplemental environmental project to improve the cooling water intake's fish screens and to install a fish friendly return as an interim impingement BTA. The installation of these screens and fish return should already have been completed pursuant to the terms of the Settlement Agreement. In addition, the Settlement required that the wastewater treatment plant's treated effluent be re-used

as non-contact cooling water (reducing water withdrawals from the Delaware River). He further explained that the Settlement included terms that require the Refinery to update studies the Department needs to make a final BTA determination, because DNREC's information concerning BTA is over 10 years old. Finally, he noted that the Draft Permit includes the 303 million gallons of water average per day limit on the Refinery's intake from the Delaware River from the Settlement. Further, the Settlement clarified expectations regarding compliance with the final §316(b) rule and some other items DNREC intended to incorporate into the draft permit, such as selenium limits. Mr. Ashby explained that the Settlement did not supersede or circumvent the public participation process, and that it explicitly provided that the public notice process for the draft permit would be followed, public comments would be considered, and any necessary or advisable revisions resulting from the public hearing process would be made prior to finalization of any decision by the Secretary on the pending permit renewal. He further noted that the Settlement does not limit DNREC's discretion in making any final determinations regarding BTA under the rule.

Mr. Ashby also explained the difference between impingement and entrainment. Impingement, in this context, refers to the fish or other aquatic life that would be stuck onto the screens when water is filtered into the Refinery—the purpose of impingement BTA would be to enhance the design to reduce impingement and harm from impingement. Entrainment is what happens to the smaller eggs, larvae and juvenile fish that flow through the screens into the intake water—none of the entrained matter survives. BTA for impingement will not necessarily be the same as that for entrainment.

EPA's 2104 §316(b) Rule at 40 CFR 122.21(r) provides detailed NPDES permit application requirements for facilities with cooling water intake structures and applies to this permit. The §316(b) Rule lists 11 different studies that the Refinery will be required to perform. They include cooling water intake structure data, cooling water system data, existing entrainment performance studies, entrainment characterization studies, and benefit evaluation studies. The draft permit requires that these studies be done before the final BTA determination can be made and several of the studies are required to be peer reviewed—in addition to the review DNREC will complete before the final BTA determination is made.

Mr. Ashby further explained that DNREC could waive some of the federal requirements under the §316(b) Regulation if the permit process begins prior to the effective date of the §316(b) Rule (and this one does), and if the permitting authority believes that there is sufficient information to establish a final BTA. However, DNREC did not establish a final BTA pursuant to the Regulation because much of the information DNREC has is over 10 years old, is from studies performed by previous Refinery owners and fails to address several different areas that are required in the 11 studies.

Mr. Ashby said that the §316(b) rule also allows the application to have interim BTA requirements until the studies are completed and a final BTA determination can be made. The draft permit that is the subject of this hearing includes several different interim BTA requirements: modified traveling screens with a fish friendly fish return system, which is intended to significantly decrease impingement mortality; a requirement for entrainment studies that will provide information necessary to making the entrainment BTA determination; reduction



of the water intake from the Delaware River resulting from the effluent recycling project; and reduction in the flow to Outfall 001 to 303 million gallons per day on a 12-month rolling average basis. This is a significant decrease in the flow from the previous permit, which will result in much less water being taken from the River and result in decreases in fish mortality. The permit requires that DNREC coordinate with the National Oceanic and Atmospheric Administration Fishery Section (“NOAA”) regarding the federal Endangered Species Act. Finally, the draft permit includes a schedule of compliance to effectuate the interim BTA requirements set out above.

While the §316(b) BTA requirements are important, there are other changes to the proposed draft permit. The permit adds the 12-month average flow limit of 303 million gallons per day to Outfall 001, requires chronic bio-monitoring and removes the requirement for acute bio-monitoring. The draft permit continues the Delaware Estuary PCB TMDL (total maximum daily loads) which are implemented through a pollution minimization plan, and requires sensitive monitoring for dioxins and furans. The reason for this monitoring is that some EPA studies have shown that refineries like DCRC can inadvertently generate dioxins and furans. However, some of those dioxins and furans can be removed by the wastewater treatment process. Consequently, the proposed permit will require monitoring to look for dioxins and furans in the outfalls from the Refinery, and if they are found in significant quantities, the Refinery will be required to complete track back studies to identify them.

Mr. Ashby explained that the draft permit also adds specific requirements for operation and maintenance of the API separator 2 and guard basins 5 and 6. There will be correcting and

updating of outfall information, because some of the outfalls are duplicative, and this draft permit includes several storm water outfalls that are new to the permit. Flow will increase to Outfall 501, due to the modified traveling screens, which will move continuously and additional water will be required to move the aquatic life through the fish return. Outfall 601 is the outfall from the wastewater treatment plant, which had previously gone to guard basin 4. Guard basin 4 is being taken out of service and water that would have gone to that outfall is being directed into guard basins 5 and 6.

Mr. Ashby noted that that a requirement will be added to the storm water plan to require that all storm water discharges to the Red Lion Creek and Dragon Run Creek must comply with the respective TMDLs for the water monitoring, which will include nitrogen, phosphorous, and enterococcus.

DCRC's representatives at the public hearing were Tom Godlewski, Environmental Manager, and Rebecca Gudgeon. Mr. Godlewski provided the Refinery's written comments on the Draft Permit, which are identified as Applicant Exhibit 1. He also provided a historic overview of the §316(b) regulation and EPA's efforts to implement NPDES regulations and court decisions that remanded them back to EPA. He pointed to EPA's 2011 proposed regulation that eventually was issued as a final regulation on April 15, 2014 and went into effect on October 14, 2014. Numerous members of the public commented on this proceeding both at the hearing and in writing.

#### **IV. TRM and Addendum**

The TRM, dated June 22, 2018, responds to the substance of all of the public comment and is incorporated herein by reference. I believe that the summary of comments and responses in the TRM are reasonable and adequate, and there is no need to repeat them in this document.

The Addendum to the TRM explains proposed changes to the draft permit that was the subject of the public hearing. For the most part, the proposed changes are reasonable in that they correct errors, bring permit references up to date, and implement the discussion in the TRM. An example of correcting errors includes switching the headings “latitude” and “longitude” in the coordinates chart. Examples of bringing permit references up to date include 1) the rewording of the incidental take paragraph on paragraph 19 to reflect that DNREC had completed its consultation with the National Marine Fisheries Services and which clarified the permittee’s duty to report incidental take of Atlantic or Shortnosed Sturgeon and 2) updating permit provisions to reflect that the modified traveling screens and fish return have already been installed. An example of implementing the discussion in the TRM concerns “trackback studies.” On page 21 of the TRM, the Response indicates that the written trackback study condition in the draft permit was not actionable, and as such it removed. The Addendum explains where it was removed from the draft permit. Except as set out below, the Hearing Officer recommends that the proposed changes to the permit be incorporated into the version issued by the Secretary.

The Addendum refers to two proposed changes to the draft permit that, in my view, warrant particular notice: condition C.1.b.2) and a new subparagraph 8) relating to selenium limits.

Although the Addendum identifies Condition C.1.b.2) as the provision on page 29 concerning the requirement for Final BTA Requirements for Impingement, the Addendum appears to be referring to C.1.b.3) which in the public hearing draft of the permit read: “Final BTA Requirements for Impingement. No later than 54 months after the effective date of the permit, the permittee shall have achieved compliance with BTA Standards for Impingement Mortality as specified below.” The Addendum refers to a comment in the Refinery’s February 12, 2015, letter, which pointed out that required studies are due 54 months after permit effective date but compliance with the BTA standards for impingement are not required by the 316(b) Rule until after issuance of a final permit that establishes the entrainment requirements under 40 CRF §125.94(d). In response, SWDS proposed to remove the language and replace it with the following: “The permittee must comply with the impingement mortality standard specified below as soon as practicable following issuance of a final permit that establishes the entrainment requirements under 40 CFR § 125.94(d).” Since SWDS is justifying the use of this language based on the applicable 40 CFR §125.94(d) provision, I suggest including the following sentence which states: “The Director may establish interim compliance milestones in the permit.” This addition would incorporate the remaining substance of the applicable federal regulation.

I am most troubled by the proposed new provision 8) concerning selenium as discussed in the Addendum. The TRM does not address selenium or this concern. The Addendum fails to point to any comments in the hearing record on which to base this provision. Nonetheless SWDS proposed to include the following condition:

“8) Compliance with Items 5-7 above are dependent upon the issuance of permits within 6 months of date of application (Item 4 above). If permits are not issued within 6 months of the date of application, the permittee will be granted an extension on the deadlines in Items 5-7 equal to the delay past 6 months of the issuance of the final permit necessary for construction and operation.”

I find no reasonable basis in the record to make the above change to the draft permit.

Consequently, I recommend that this change be deleted from the permit.

#### **IV. RECOMMENDATIONS**

For the reasons set forth below, I recommend issuance of the permit renewal as presented by SWDS, but modified pursuant to the discussion above. These changes involve adding the language to the revised paragraph to more fully track the federal requirement for when Impingement BTA is required and removing the proposed subparagraph 8) concerning selenium.

##### **A. Findings of Fact**

I make the following findings of fact, which I recommend that the Secretary adopt in his Secretary's Order:

1. The Department provided legal notice of the public hearing and public comment was submitted into the record.
2. The Department summarized public comment from the record and responded to the technical issues in the TRM, prepared a modified proposed permit with suggested amendments and provided the Addendum to the TRM explaining the proposed changes.
3. The Department proposed to delete the language in the public hearing draft of the permit indicating that TRM for Final BTA Requirements for Impingement are due

54 months after the effective date of the permit. This change was made to respond to comments by DCRC that 40 CFR § 125.94 requires that studies to support the Final BTA Requirements are due 54 months after permit issuance and that implementation of the Final BTA for Impingement is not due until after issuance of the Final Permit establishing entrainment requirements. The Department proposed new language based on 40 CFR § 125.94 reading: “The permittee must comply with the impingement mortality standard specified below as soon as practicable following issuance of a final permit that establishes the entrainment requirements under 40 CFR § 125.94(d).” The permit should be modified to make that change, but to more fully incorporate the applicable provision the following sentence should follow that language: “The Director may establish interim compliance milestones in the permit.”

4. SWDS proposed to add a provision related to selenium that was inadequately supported in the record. This paragraph will not be added to the renewed permit.
5. The Record supports adopting SWDS’ recommendation that the Department issue the Applicant the renewed NPDES permit based upon the Revised Draft Permit prepared according to the TRM and its Addendum with the two changes discussed above.

#### **B. Conclusions of Law**

Based upon the above findings of fact, I recommend that the Secretary adopt the following conclusions of law in his Secretary’s Order:

1. The Department has jurisdiction under its state and delegated federal authority pursuant to *7 Del. C. Chapter 60*, and the NPDES Regulations to make a determination regarding the draft NPDES Permit;
2. The Department provided adequate public notice of the Application and the public hearing pursuant to *7 Del. C. §6004(b)*;
3. The Department considered all timely and relevant public comments and responded reasonably, which is established in the Hearing Officer's Report; and
4. The Hearing Record supports issuance of the modified Permit based upon SWDS' draft permit that was attached to the TRM, as modified based on the Hearing Officer's Report. That permit includes reasonable conditions intended to protect the environment and public health.

### **C. Reasons**

According to the Addendum to the TRM, the Refinery has already installed the modified traveling screens and the improved fish return. Reissuance of the NPDES permit for the Refinery triggers a 54 month period for the Refinery to complete studies upon which to base a final determination for BTA for impingement and entrainment on the cooling water intake for the Refinery. These changes are intended to reduce harm to the Delaware River and the environment and to provide a basis for a final determination of BTA for impingement and entrainment from the cooling water intake at the Refinery. The permit as proposed to be modified herein meets state and federal requirements, the public has commented on it, the hearing record supports its issuance, and issuance of the permit will best further the purposes of *7 Del. C. Chapter 60*.